

Appl. No. 10/580,153
Amtd. dated February 23, 2009
Reply to Final office action of Nov. 24, 2008

AMENDMENTS TO THE DRAWINGS

The attached (2) sheets of drawings includes changes to Figs. 5, 6, and 7. These sheets, which include Figs. 5, and Figs. 6-7, respectively, replace the replacement sheets submitted on October 24, 2008 including the same figures.

In Figure 5, the cross hatch pattern has been changed to depict the aluminum shaft 7 and non-plastic carrier plate 5.

In Figures 6 and 7, the cross hatch pattern has been changed to depict the aluminum shaft 7 and non-plastic carrier plate 5.

Attachments: Replacement Sheets (2)
Annotated Sheets Showing Changes

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REMARKS

Claims 14-30 are presently in the application. The above amendments are being made to place the application in better condition for examination.

The replacement drawings filed October 24, 2008 were objected to because:

a. An inappropriate cross hatch pattern is used for the aluminum alloy shaft 7.

Replacement sheets of drawings and annotated sheets showing changes are submitted herein showing the required corrections.

b. The examiner states that drawings fail show following claim features:

i. Claims 27 & 28: "the suction extraction opening has a larger diameter than the inflation opening"

ii. Claims 29 & 30: "an angle of at least approximately 90 degrees"

Applicants assert that these features are shown in Fig. 2, where suction extraction opening 61 is larger than inflation opening 62, and these openings are disposed at a 90 degree angle from each other. A person skilled in the art can recognize these features in the drawings in conjunction with the specification and claims.

Withdrawal of the objections are respectfully requested.

Reconsideration of the rejection of claims 11-13, 18, 19, 22-24, 27 & 29 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement is respectfully requested.

Claim 11, line 6 recites the limitation, "unobstructed." Applicant's opinion is that this feature is supported in the originally filed application by Fig. 2, radial openings 61, 62 and the

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specification [0027], “two opening, 61, 62 are present, which create a connection from the outside to the radial leadthrough.” However, Applicant has amended the claim language to replace the term with “which provide direct access to the axial leadthrough.”

Withdrawal of the rejection is respectfully requested.

Reconsideration of the rejection of claims 11-13, 18, 19, 27 & 29 under 35 U.S.C. 102(b) as being anticipated by Louviere, US 4,210,213 is respectfully requested.

Claim 11 is directed to a rotary leadthrough of a fourth axle of a Delta robot arm, the rotary leadthrough comprising

a housing,

a shaft located in an axial leadthrough of the housing and is rotatably supported in the housing, for connection to the robot arm, and

at least two openings in the housing which provide direct access into the axial leadthrough from outside the housing for cleaning the axial leadthrough, *one of the at least two openings being a flushing opening and one of the at least two openings being a suction opening,*

the shaft having a reduced diameter extending over a portion of its length, which diameter is less than the diameter of the axial leadthrough in a corresponding region of the axial leadthrough, thereby providing a void between the shaft and the axial leadthrough.

Louviere shows a housing 10; a shaft 12, 20 located in an axial leadthrough 36 of the housing and at least one opening 40 in the housing. The openings 40 relied upon by the examiner are “screens” provided in a “bushing guard 10” to allow inspection to the bushing

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thereunder. The guard is for safety to keep a persons limbs or digits away from the rotating table. The screen are provided to prevent access to inside of the guard housing 10. This is completely contrary to the present invention which is to allow direct access into the axial leadthrough from outside the housing for cleaning the axial leadthrough.

Louviere lacks any disclosure of openings in the housing having direct access for cleaning the axial leadthrough, and more particularly, disclosure of one of the openings being a flushing opening and one of the openings being a suction opening. The teachings of Louviere are to keep the rotary elements covered and unexposed for safety purposes.

Accordingly, Louviere fails to anticipate the combination of the elements of the present device according to the invention as required under 35 U.S.C 102(b). Therefore, it is respectfully requested that the rejection of the claims is withdrawn.

Reconsideration of the rejection of claim 24 under 35 U.S.C. 103(a) as being unpatentable over Louviere, is respectfully requested.

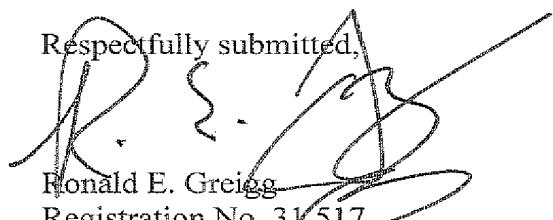
Louviere shows a housing 10 and a shaft 12, 20, but does not expressly disclose making the housing of plastic and/or the shaft from aluminum. The examiner asserts that it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the housing of plastic and/or the shaft from aluminum.

Regardless of whether the examiner's position is valid, Louviere is deficient in teaching or suggesting the basic structural arrangement of the elements according to the invention, as discussed above. Accordingly, Louviere does not render the present invention

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obvious under 35 U.S.C.103(a). Therefore, it is respectfully requested that the rejection is withdrawn.

Entry of the amendment is respectfully solicited.

Respectfully submitted,

Ronald E. Greigg
Registration No. 31,517
Attorney of Record
Customer No. 02119

GREIGG & GREIGG, P.L.L.C.
1423 Powhatan Street
Suite One
Alexandria, VA 22314

Telephone: (703) 838-5500
Facsimile: (703) 838-5554

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